

Inventions & Innovation Emerging Technology

Innovative Approach to Improved Fuel Economy in Heavy-Duty Trucks

A new technology uses an innovative approach to apply a hydrostatic transmission system as a continuously variable transmission in trucks. This transmission uncouples the engine speed from the wheel speed and allows a control module to optimize the engine speed with torque to maintain the vehicle speed. This approach increases fuel efficiency significantly to offset the reduction in transmission efficiency. Related work is exploring an approach to increasing torque at lower engine rpm that results in a dramatic reduction in emissions and a reduction in parasitic energy consumption through the elimination of the engine cooling fan. The potential fuel and emissions savings from these technologies are applicable to all highway vehicles; the present concentration is on the trucking industry.



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